Part One

Advanced Studios

Working at the urban and landscape scale, these projects examine architecture as a way to change how we interact with the land. Using techniques of enmeshing, blurring, amplifying, returning, overlapping, connecting, unconstructing, reusing, seeking, avoiding, repairing, engaging, acknowledging, and de-centering humans to create a more inclusive architecture and landscape.
Blurred Ecologies

Columbia University GSAPP
MArch I
Adv VI - Mario Gooden - Water Studio
Spring 2022

This project looks at how the ecology and connection to the natural environment has changed from the ahupua’a and aina land model to the mainland suburban model of land occupation in Oahu. Looking at the factors that made this transition happen and are keeping the ahupua’a from successfully providing for its people, to propose a project that reestablishes the practice of ea and aina.

It considers a possible future that is a product of these overlapping histories and an unconstruction of the human interventions to allow the return of aina. Through adaptive reuse and the acknowledgment that nature is a decolonizing force, there is an enmeshing of materials, histories, and futures.

Returning the fish ponds to a state of aina requires their connection to the rest of the ahupua’a. The urban grid gives way to reestablish the river network that delivers nutrients from the kalo fields up river. Buildings are “unconstructed”, removing walls to allow the shifting sand dunes, fish ponds, streams and Waikiki breeze to move through their hollow frames and out from the Fort DeRussy site.
The Sensory Publics Studio looked to design a space for the neurodiverse community at the intersection of the public and private realm. We identified areas in our neighborhood that were under performing and proposed interventions.

Community Building looks at a superblock on the Upper West Side and in acknowledgment of the collective harm of its urban renewal past proposes a first step in a series to repair its effects. I am offering one possible proposal for the land to be turned into a Community Land Trust, turning the parking lot of the urban renewal development into a series of productive and inclusive space within the neighborhood.

By creating programmed hubs of varying sensory experiences and sensory transition spaces between these hubs, the project looks to create a variety of experiences, paths, and zones of seeking and avoiding as you move through the site.
ADVANCED STUDIO

SITE HISTORY

Community Stakeholders

Community Land Trust & Program Hubs
Natural Tectonics

Columbia University GSAPP
MArch I
Advanced IV - Jerome Haferd - Dark Rurality
Spring 2021

Natural Tectonics counters the idea of a virgin landscape to reassign value in the land surrounding Soul Fire Farm as an infrastructure of care and habitation, de-centering the human to create a form of land stewardship.

Soul Fire Farm is a 72 acre BIPOC community farm that shares skills in sustainable agriculture, natural building construction, spiritual activism, health and environmental justice that was looking to expand their campus with a lodge and program center to expand their ability to teach their ways of working with the earth. I propose a new farming and building infrastructure that allows them to connect further with the landscape while providing habitat for natural plants and wildlife.
These projects look to empower the communities they are for, going beyond their programmatic prescription to create engaging spaces that build interdependencies amongst their extended community. Breaking down the line between public and private to create intimate and inclusive spaces.
Located in the Melrose neighborhood of the Bronx, our apartment building looked to create interconnected micro-communities for a neighborhood lacking space for collective activities. We addressed the threshold between individual and collective activities and how that manifests in public housing. Our solution is to introduce localized amenities connecting vertical cores; extending the resident’s daily activities throughout the building to create micro communities unique to each apartment. The localized amenities create a network through the building, connecting apartments to other apartments, cores, courtyards, and rooftop terraces and complimenting other adjacent amenities. Public space is brought in to the building and courtyards in the form of an extension of the Bronx Documentary Center (existing on site), cafe, daycare, and gym.

Jo Hee and I worked collectively throughout the project. The Hardegg building by Matti Ragaz Hitz in Bern was used as precedence for our project.
School for Community

Columbia University GSAPP
MArch I
Core II - Erica Goetz - Adaptive Reuse School
Spring 2020

The project is located in the East Village of New York City and takes an adaptive reuse approach to revive the existing H block school designed by C. B. J. Snyder in 1904. The project looks to bring the community into the school through architectural events that break down the line between the school and the surrounding neighborhood. The public programs are extracted, reoriented to the neighborhood, and then reinserted back into the school while maintaining their presence on the exterior. This reorientation skewers the public programs from the building and city grid and its heavily axial views, creating a new perspective on the city and a visual and physical connection between the school and neighborhood. Spaces are organized within the building based on levels of public interaction with the program. Each space’s interaction with the building then begins to inform the interior spaces. Sectional shifts create opportunities for play spaces with uneven ground or double height conditions. The public programs make a connection back to the community while creating a dynamic interior space.
SITE APPROACH

CORE STUDIO

Roof Terrace

Art Space/Gallery

Wood Shop

Library

Music/Performance Space

Restaurant/Food Lab

Auditorium/Theater

Gym

PUBLIC PROGRAMS
Looking at the median as a resource, this project exists in a smart street future where medians become an integral part of the greater smart street system. The intervention acts as a charging hub where one can spend their time in the park or performance space. The form is derived from using the concrete median as a datum and how the intervention can begin to interact with the infrastructure around it, moving above the street to provide a new vantage point and below to interact with the subway. This move allows for the creation of four different types of spaces; indoor, semi-enclosed, covered and outdoor space which then promote different activities. An interior performance space, enclosed observation platform, and an elevated meadow are created.
Part Three

Tech, Visual Studies, and History

The following works are experiments in technology and making in the physical and digital realms. They accompany and compliment the previous work. You’ll find architecture of varying scales, a website and a book entry.
Melrose Community Center

Columbia University GSAPP
MArch I
AT III & IV
Fall 2020
Partners: Livia Calari, Hazel Villena, Kaeli Streeter

The project looks to create thermal diversity by creating an atrium and courtyard space within the building which creates several thermal transition zones as well as allowing cross ventilation and daylight to penetrate the building. The terracotta facade screen creates a dynamic and contextual front to the building while regulating sunlight and responding to the interior program to provide privacy.

As a group we worked on the development of the initial design in Rhino until I transferred the project into Revit. As a team we split the tasks of detailing and annotating the architectural, MEP, structural, and facade elements. I worked on program layout, structural detailing and facade screen design.
1. TERRACOTTA SUNSCREEN FACADE
2. TERRACOTTA FACADE SYSTEM FRAME
3. GLAZED WINDOW WALL SYSTEM
4. PILE FOUNDATION
5. CELLAR WALL
6. SLAB ON GRADE
7. CANTILEVERED FLOOR
8. 6'-6" DEEP STEEL WARREN TRUSS
9. STEEL COLUMN INSIDE GYP.
10. HANGER SYSTEM SUPPORTED BY TRUSS
11. COMPOSITE METAL DECK FLOOR SUPPORTED BY STEEL BEAMS
12. SECONDARY STEEL FRAME FOR SOLAR PANELS
13. SOLAR PANELS
Asymmetric Column

Columbia University GSAPP
MArch I
Transitional Geometries - Josh Jordan
Fall 2021

The tile explores how the introduction of asymmetries to a pure geometric form creates variation once the tile is turned into an aggregated form.

By first adding a sloped surface to the top of the tile, numerous variations in stacking are created. Co-opting the initial mold with the addition of subtractive inserts create further variety and begin to abstract the original form creating openings as the tiles stack.
This course focused on the detailed design of building cladding through an understanding of materials and their physical properties. We began the semester analyzing a specific cladding material’s properties, fabrication, and implementation. We then looked at a previous project to further work out the details on. Using Ally and Bisher’s housing studio project we developed the details for the atrium roof, operable balcony window wall, and a standard wall/slate cladding system detail.
This project was developed collectively with the skills learned throughout the semester in Ultrareal. We created a staircase that would act as a beacon in the desert, drawing travelers to the oasis. The staircase overpowers the lightweight structure as you move up to the observation deck at the top. We worked in Rhino to model the tower and then imported to 3DS Max to develop the scene. Material was developed within VRay; atmosphere, context, and plants were developed within 3DS max with material maps and Forest Pack.

As a team we made a lot of changes to the initial design, building off each iteration to achieve the desired effect. Collectively we worked on a material palette that then began to drive the design and environment it would be placed in. With the design feedback of the group, I produced the final design for the tower and placed it within the landscape that Adeline had made. I used Forest Pack to populate the landscape and created the environmental effects within the render. No photoshop was used in the production of the rendering.
Food as Soft Power

Columbia University GSAPP
MArch I
Conflict Urbanism - Laura Kurgen
Spring 2021
Partners: Gizem Karagoz, Caroline Maxwell, Adam Vosburgh

While food can transcend cultural boundaries, it is also a site of conflict. This research focuses on the superfluous nature of corporate supply chains. In this study, the broader systemic fractures of the food system are revealed through the examination of corporate infrastructures’ role in exacerbating food insecurity in the Hudson Valley during the COVID-19 pandemic.

How does food infrastructure perform as a tool of soft power? Our research illuminates the increasing vulnerability of food the further it travels from its source and the apparatuses of infrastructural dependency embedded within the Hudson Valley food system. By examining infrastructure and the injustices within it, we hope to render visible the systemic issues present in our broader food systems. The Covid-19 pandemic has exacerbated the inefficiencies and weaknesses within corporate food infrastructure, so the argument for a local, sustainable, and just food system becomes critical for our shared future.

Forms of Resistance

Forms of resistance to corporate supply chains include grassroots organization, local food networks, community shit, farmers markets, and retail deli and other services. When corporate supply chains such as Walmart collapsed during the Covid-19 pandemic, local systems were able to fill the gap empowering local networks and resilience despite the circumstances.

Conclusion
**HISTORY ELECTIVE**

**Forms of Resistance**

Forms of resistance to corporate supply chains include grassroots organization, local food systems, community fridges, farmers’ markets, and meat delivery services. All these publics share a strategy of building localized, small-scale meat and dairy systems that are continuous operating mixed-coordinated entities that produce the food. Despite these considerations, the resistance systems have not been able to compete with the large-scale corporate systems.

**Conclusion**

**Short Chain – Travel Distance**

A primary benefit that small-scale producers of Kingston’s farmers market in Michigan farms, and they ship directly. These farms are in the thousands of farms that are already making progress on local food systems, with these “short supply chains” not making direct to large supermarkets, as is the case with large-scale supply chains.

**Forms of Resistance**

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**Conclusion**
Book: Ephemeral Architectures and Falsified Cities

Columbia University GSAPP
MArch I
Utopian Visions - Luis Carranza
Fall 2020
Partners: Class Project

This research seminar set out to study utopias/ utopian communities conceived and planned throughout Latin America primarily in the 19th and 20th centuries. We looked in depth at the different forms proposed, the manifestos of their designers, and the context that engendered them and to which they responded. Students individually examined a Latin America utopia and the research was compiled into a book.

World of Matter
Mabe Bethonico, Paulo Tavares, et al.

World of Matter is currently a group of 14 artists, researchers, journalists, filmmakers, activists and architects from around the world, that since 2013, have been exploring global ecologies and resource exploitation with an intent of shifting the conversation away from a capitalist narrative to a publicly engaged one. They are combating the notion that these natural resources are solely for human consumption and need to be consumed in ethical ways that consider the fragile system we exist within.

The project currently consists of a book of the same name published by the MIT Press and 27 works that range in topics like mining and its exploitation of resources and workers, cotton production and the influence of big industry, overfishing and its effect on migration, urban demand and politics effect on rural resources, planning as an export of the urban, and the water ecologies of the Nile. These projects make use of visual material for its accessibility in educating and raising public awareness on projects that increasingly touch on topics hidden from the public realm. The Utopia is thus represented in exhibitions, events, publications, and through photos, films, and writings on their online platform (www.worldofmatter.net).

Location: Minas Gerais, Brazil/ Quito, Ecuador
Type of Utopia: Rural/City, Ideal/ Conceptual
Utopian Attributes: Capitalocene focused, labor rights, land rights

Bibliography:
Arns (2015), Sarkis and Salgueiro (2020)

2013
World of Matter
Crutzen/Stoermer
Anthropocene Hypothesis

2000
2016
Malm/Moore
Capitalocene Hypothesis

2000
Crutzen/Stoermer
Anthropocene Hypothesis

2016
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Capitalocene Hypothesis
World of Matter is Mabe Bethonico, Ursula Biemann, Uwe H. Martin, Helge Mooshammer & Peter Mörtzböck, Emily E. Scott, Paulo Tavares, Lonnie van Brummelen & Siebren de Haan. For this book we will focus on the works of the two Latin American members: Brazilian artist and researcher Mabe Bethonico and Brazilian architect and urbanist Paulo Tavares.

Mabe Bethonico’s first project Mineral Exploitation, focuses on capitalism’s history, exploitation of labor, and ecological destruction in the mines around Minas Gerais, Brazil. Working with the German philosopher Anselm Jappe they provide a visual and research analysis of Georgius Agricola wood cut cataloguing of mining processes titled De re metallica that mechanized that actions of mining in a way that predated Taylorism by three centuries. Anselm touches on the fact that Mining is one of the toughest and longest forms of labor saying “the harvest in agriculture will end with the last stalk - but if the worker is to accumulate gold for his boss, there is no limit to the work that is imposed on him, because there is no limit to the gold that can be accumulated.”

“The harvest in agriculture will end with the last stalk - but if the worker is to accumulate gold for his boss, there is no limit to the work that is imposed on him, because there is no limit to the gold that can be accumulated.”

- Anselm Jappe
Biography

Paulo Tavares is a Brazilian architect and urbanist based in Quito and London whose work looks at the relations between conflict and space as they occur at multiple scales. He combines design, media-based cartographies and writing which has published and featured in shows in Glasgow, Berlin, and Taipei. He teaches architecture at the Universidad Católica de Ecuador - Facultad de Arquitectura, Diseño y Arte, Quito, and previously held teaching posts at the Centre for Research Architecture - Goldsmiths, and at the Visual Lab of the MA in Contemporary Art Theory, also at Goldsmiths, UK. Writings appeared in many publications worldwide and his work has been exhibited in various venues including CCA: Centre for Contemporary Arts - Glasgow, Haus der Kulturen der Wel - Berlin, Portikus - Frankfurt and the Taipei Biennial 2012.

In 2008, the new constitution of Ecuador was created. With pressure from indigenous people, the new constitution added the Non-human Rights in which Nature, like humans, is defined as a subject of the law. Paulo explores this process through interviews, video archives, and writings.

In 1990 the philosopher Michel Serres wrote The Natural Contract. In this book he writes "we so-called developed nations are no longer fighting among ourselves; together we are all turning against the world. Literally a world war, and doubly so, since the whole world, meaning all men, imposes losses on the world, meaning all things. We shall thus conclude a peace treaty."

Paulo interviews the main actors in the fight between indigenous peoples and the government for land rights and non-human rights. This change takes the form of several protests in country and urban settings. He begins with an interview of Alberto Acosta and a video showing the expulsion of the military from indigenous lands. With this Acosta ties the rights of nature to the larger emancipation of humanity, a continuous expansion of rights. By ensuring the right to nature, we are ensuring a habitable world and thus the rights of humans to exist.

“Nature or Pachamama, where life is reproduced and exists, has the right to exist, maintain and regenerate its vital cycles, structure, functions and evolutionary processes. Every person, people, community or nationality, can demand the enforcement of the rights of nature before public institutions”

- The Rights of Nature